



D!STRACTED DRIVING **SUMMIT**

Washington, DC
September 21, 2010

Ray LaHood
Secretary of Transportation





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Hilda Solis
Secretary of Labor





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Senator Jay Rockefeller

West Virginia



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Senator Amy Klobuchar

Minnesota



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Distracted Driving – A Year of Action

MODERATOR

Janet Froetscher, President and CEO, National Safety Council

SPEAKERS

Molly Ramsdell, DC Office Director, National Conference of State Legislatures

Katie Thomson, Counselor to the Secretary, U.S. Department of Transportation

Dr. Dan McGehee, Director, Human Factors & Vehicle Safety Research Division, University of Iowa

Captain Shannon Trice, Syracuse Police Department



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Molly Ramsdell, DC Office Director
National Conference of State
Legislatures



NATIONAL CONFERENCE of STATE LEGISLATURES

The Forum for America's Ideas

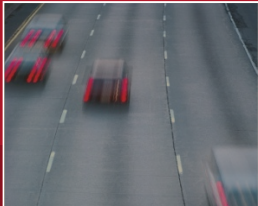
Distracted Driving: Summary of NCSL's Activities

- Spring 2001 - Driver Focus and Technology Forum
- March 2002 - NCSL report, *Along for the Ride*, released. Provides summary of forum meetings and makes policy recommendations.

At the time, New York was the only state with a hands-free law. Arizona and Massachusetts had laws targeting school bus drivers.

- NCSL continues to track state legislative activity and provide state legislatures resources on distracted driving.





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Distracted Driving: Summary of State Legislative Activity

Year	Number of states that considered legislation	Number of bills introduced	Number of states that enacted laws	Comments
2001	43	140	8	<i>Most required studies</i>
2007	44	130	12	<i>Washington became the first state to adopt a texting ban</i>
2008	33	131	7	
2009	25	222	17	
2010	43	270+	25	<i>30 states and D.C. have passed texting bans</i>

States That Ban All Drivers From Text Messaging While Driving

States That Do Not Ban All Drivers From Text Messaging While Driving

Source: NCSL, 2010

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Distracted Driving: Summary of Select State Requirements

- 30 states and D.C. have passed texting bans. (26 states have primary enforcement)
- 8 states--CA, CT, DE OR, MD, NY, NJ, WA--and D.C. have hands-free laws in place.
- 19 states and D.C. prohibit school bus drivers from using cell phones while operating a bus.
- 28 states and D.C. prohibit new drivers from using cell phones while behind the wheel.



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Resources and Contact Information:

2009 Legisbriefs related to Distracted Driving

Addressing Distracted Driving

<http://www.ncsl.org/default.aspx?tabid=19098>

Texting While Driving Could Spell D-A-N-G-E-R

<http://www.ncsl.org/default.aspx?tabid=18649>

NCSL tracks Distracted Driving issues on our Traffic Safety Legislation Database

<http://www.ncsl.org/default.aspx?tabid=13590>

For information on all distracted driving laws see NCSL's Cellular Phone Use While Driving Laws Chart

<http://www.ncsl.org/default.aspx?tabid=17057>

Molly Ramsdell, Director, Washington Office

National Conference of State Legislatures

Phone: (202) 624-3584; email: molly.ramsdell@ncsl.org





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Dr. Dan McGehee, Director
Human Factors & Vehicle Safety
Research Division, University of Iowa

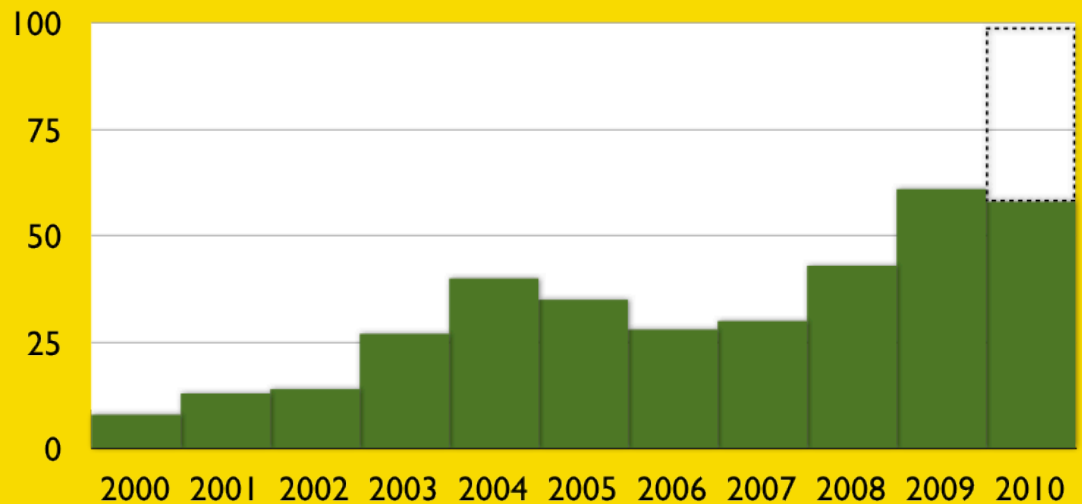


History of driver distraction research

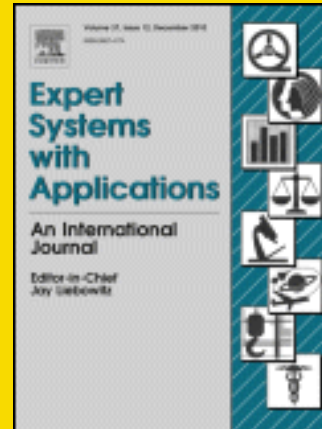
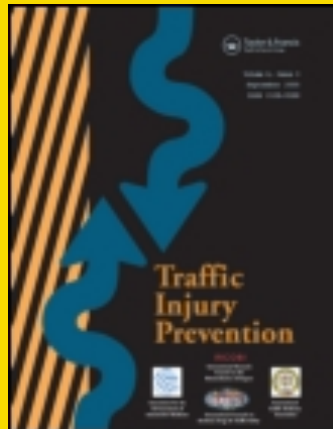
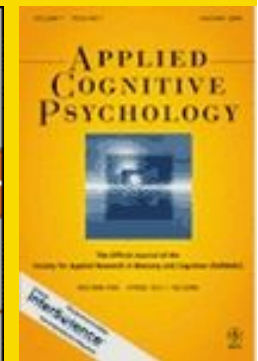
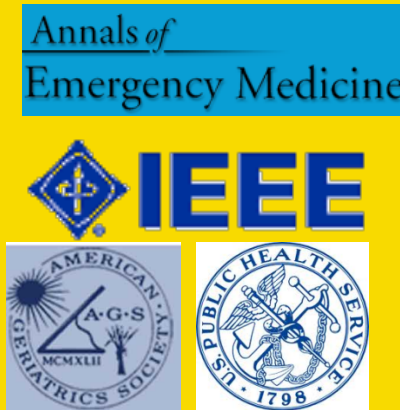


- Senders et al 1967
 - Attentional demand of automobile driving
- Brown et al 1969
 - Interference between concurrent tasks of driving & telephoning
- 1970s-90s: about 30 scientific journal articles
 - 1983 Vision in Vehicles Conference series established

Number of Scientific Journal Articles 2000-2010



2010 Distraction Research Increasingly Interdisciplinary

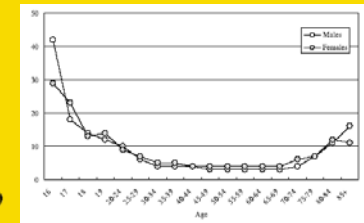
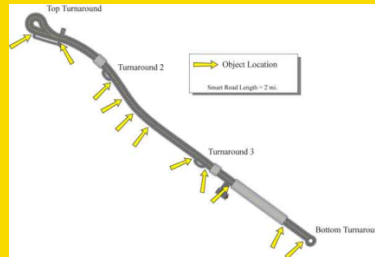


6th Intl. Driving
Assessment
Conference



International Conference
on Driver Distraction
and Inattention

Research tools and experimental control



Laboratory

Simulation

Test track

Field experiments

Event-triggered video

Field operational tests

Naturalistic Driving

Crash data

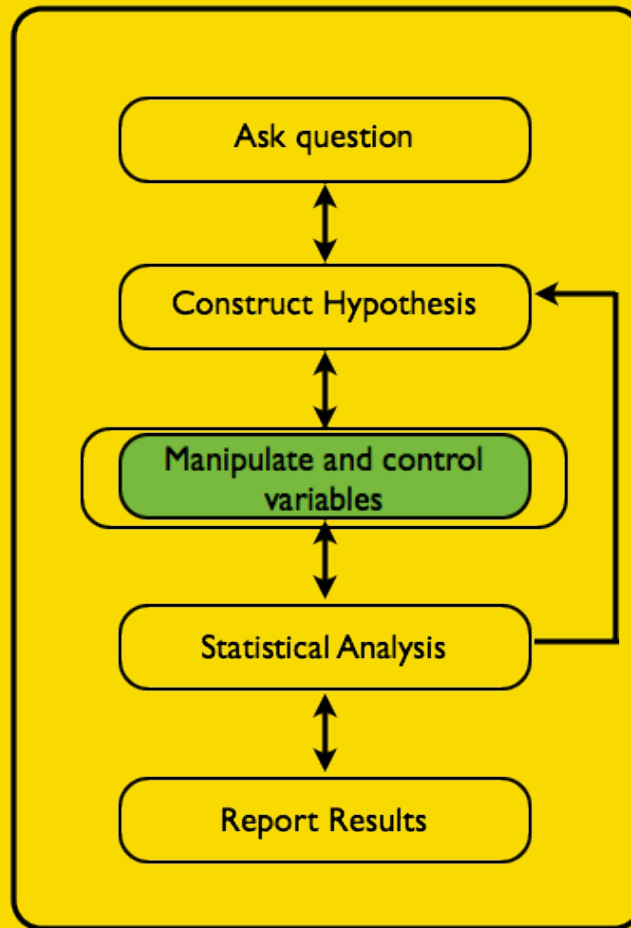
'Realistic' driver behavior

High Experimental Control

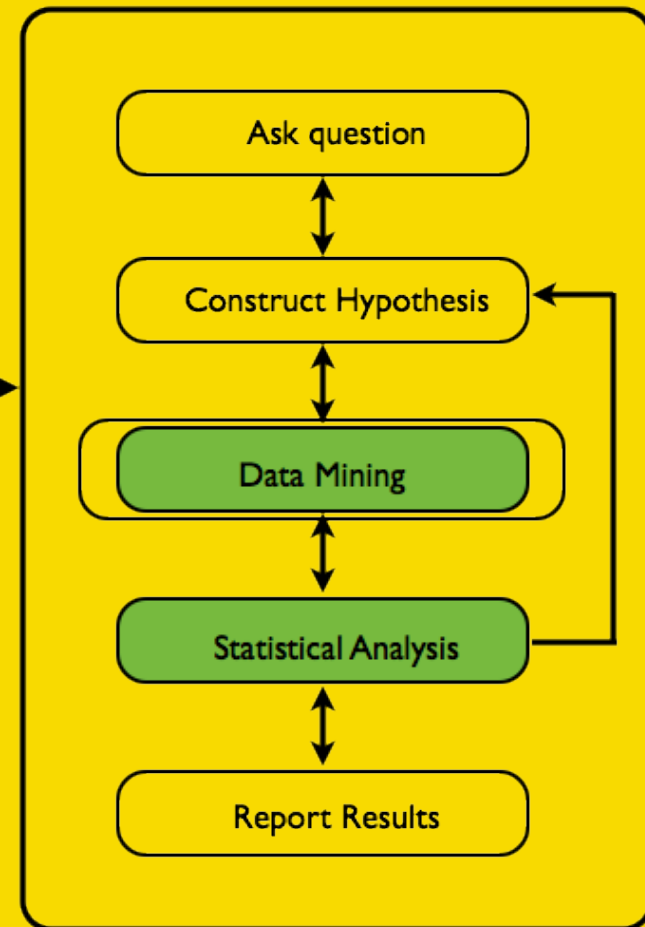
No Experimental Control

The Search for a Gold Standard in Scientific Methods

Traditional Scientific Method



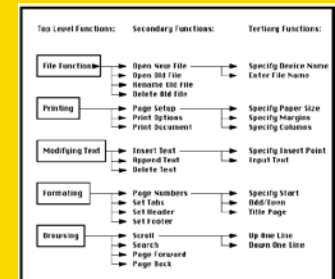
Evolving Science in Naturalistic Driving



Research Gaps

- Social communication   
- Interface differences

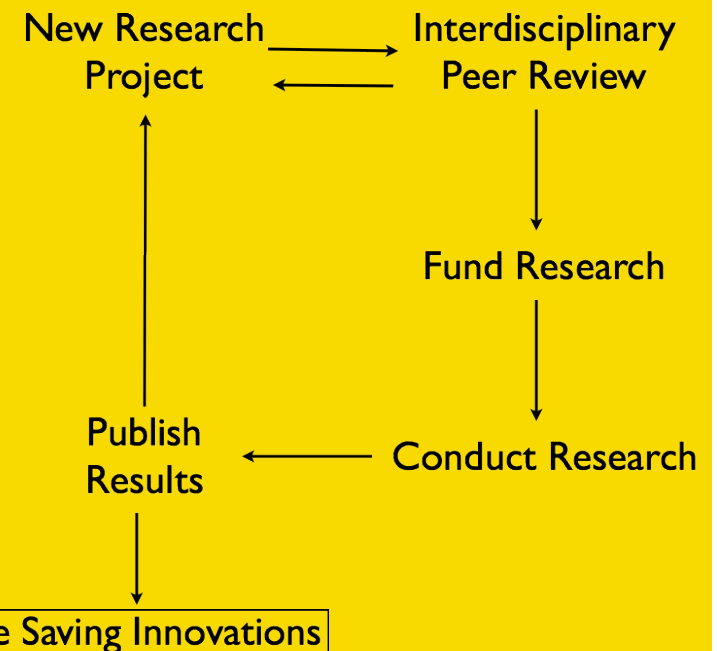
- Cognitive and Physical Task Analyses
- Data collection across research platforms
- Mitigation technologies
- Driver strategy in mobile phone use



- Individual differences
 - Anticipating trends

Funding more innovation

- Consider NIH and/or ONR research model
- Investigator initiated research
- Interdisciplinary peer review
- Publication metrics
- Increase international collaboration





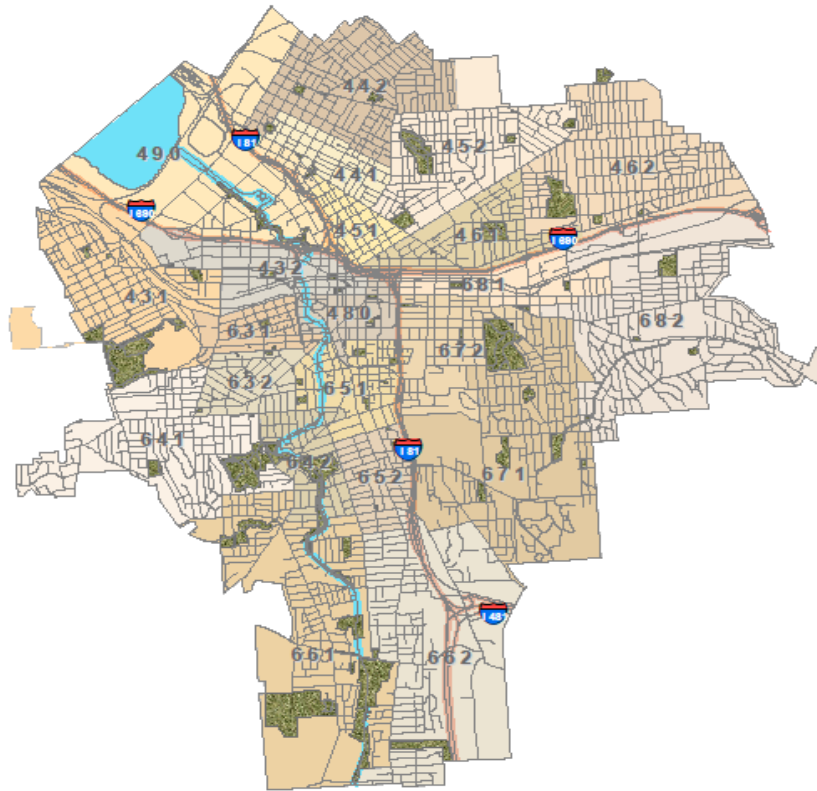
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Officer Shannon Trice
Syracuse Police Department



Syracuse, New York



Citypop: 140,658

Metro pop: 732,117

Square Miles: 26

Road Miles: 407

Yearly Crashes: 7,000

Yearly Fatal Crashes: 09

Yearly DWI arrests: 475

Yearly Tickets: 44,000



Goal Oriented Enforcement

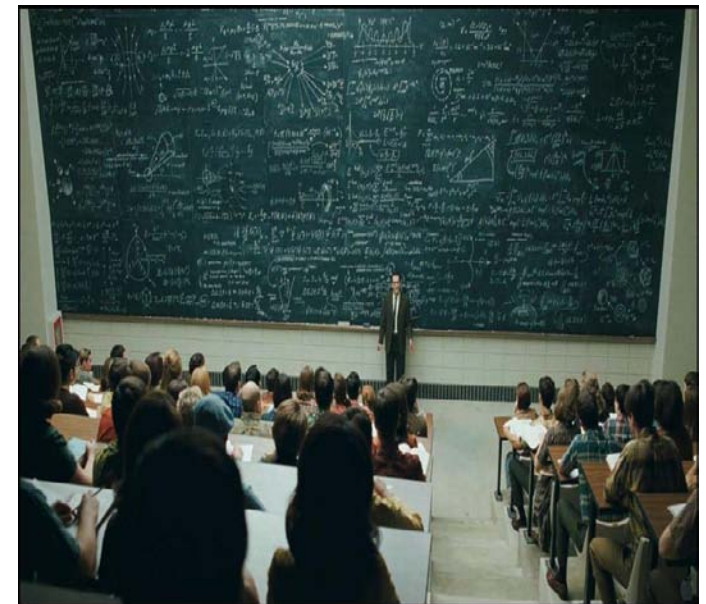
- The Strangest Secret
- Approach Comparison
 - City: 4.2 tickets per hour/2.1 cell tickets per hour
 - Sheriff: 1.8 tickets per hour/1.2 cell tickets per hour
 - State: 1.5 tickets per hour/.8 cell tickets per hour





Enforcement Strategies

- Roadside watching
- Mobile patrol
- Checkpoint
- Looking down from on high
- Enforcement Vehicles
- Pairing offenses



Owen Feltham

“The greatest results in life are usually obtained by simple means and the exercise of ordinary qualities.”



Know Your Indicators

- Eye on the driver
- Phone to ear/steering wheel
- Driver's eyes
- DWI driving cues
 - Maintaining lane position
 - Speed and braking problems
 - Vigilance problems
 - Judgment problems

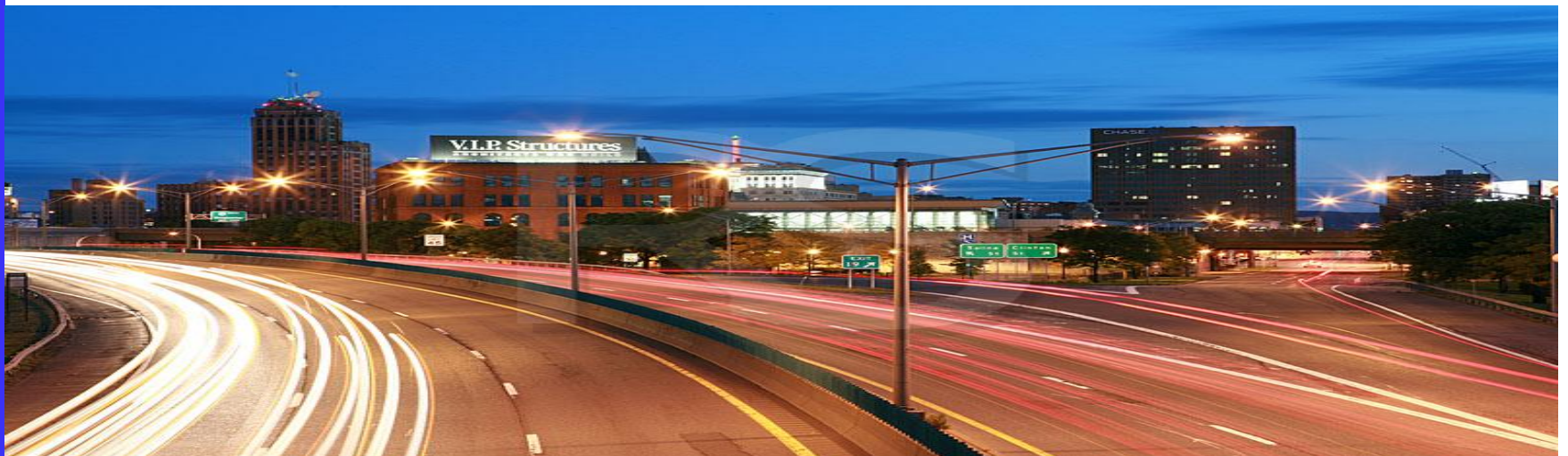
Shannon Trice

“Behavior never lies!”



Know Your Roads

- Volume, Volume, Volume
- Business Districts
- Easy Entrance
- Camouflaged





Summary

The most effective way to influence others is to demonstrate the desired behavior on a consistent basis.

We need to inspire people to follow our advice and example because there is a payoff in the form of improved performance and effectiveness.



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Deputy Secretary John D. Porcari
U.S. Department of Transportation





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Communications and Media

MODERATOR

Terry Holt, Partner, HDMK

SPEAKERS

Joe Rospars, Founding Partner, BSD

Al Moffatt, President and CEO, Worldwide Partners, Inc.

Madalene Milano, Partner, GMMB





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Joe Rospars, Founding Partner
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Al Moffatt, President and CEO
Worldwide Partners, Inc.



U.S. Department of Transportation

worldwidepartners inc.

Advertising to a distracted world



the more insightful network



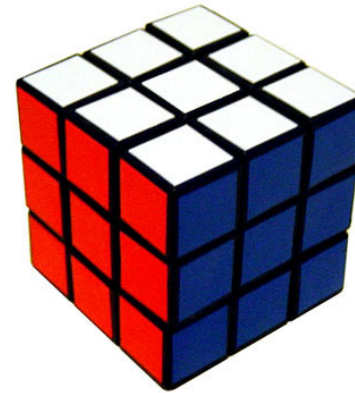
Message



Target



Media

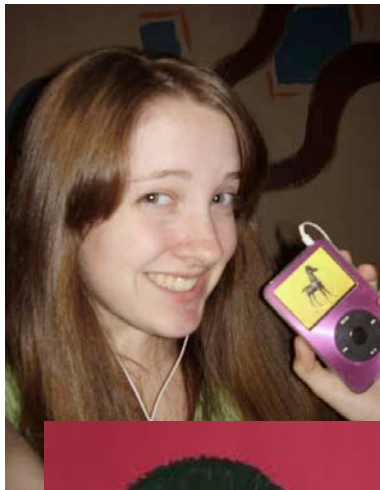


Structure

Messaging- What's Distracted Driving?



Who Is The Target?



What Is The Media?

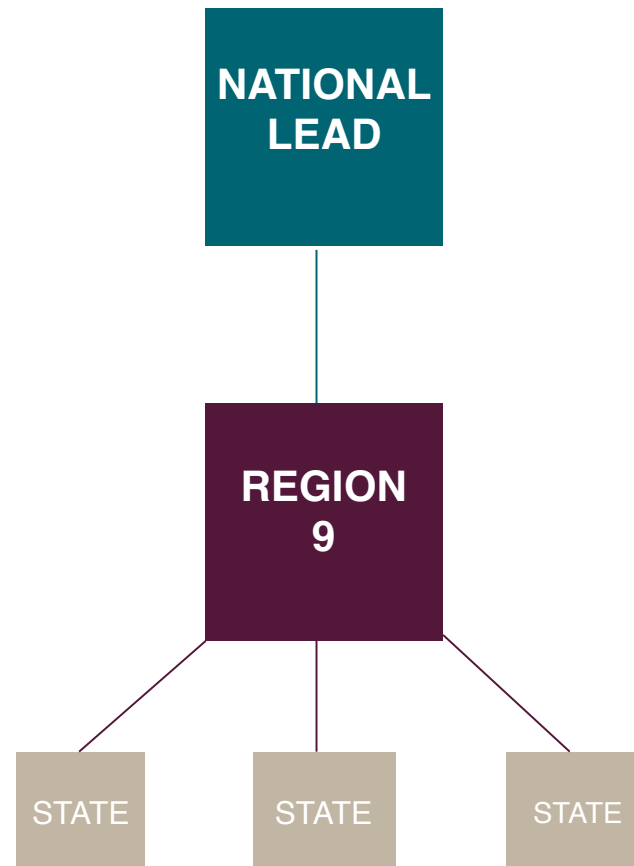
- *Advertising* = Emotional Messenger
- *PR* = Credibility Builder
- *Digital/Social* = Connector & Buzz
- *Direct Marketing* = Action
- *Events* = Relationships

Message, Media & Structure

Foundation - Brand/Adv/PR/Digital

Supervisor- Media/Templates

Grass Roots- Social/Direct/Events



International?



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Madalene Milano, Partner
GMMB



Earned Media: The Basics

- Earned media is getting the news media to cover *your* story and *your* message on *your* terms
- All coverage is not equal – there is good coverage and bad coverage
- Earned media is not free – you have to work for it



STONEBRIDGE
CHURCH OF GOD

**HONK IF YOU LOVE
JESUS TEXT
WHILE DRIVING IF YOU
WANT TO MEET HIM**

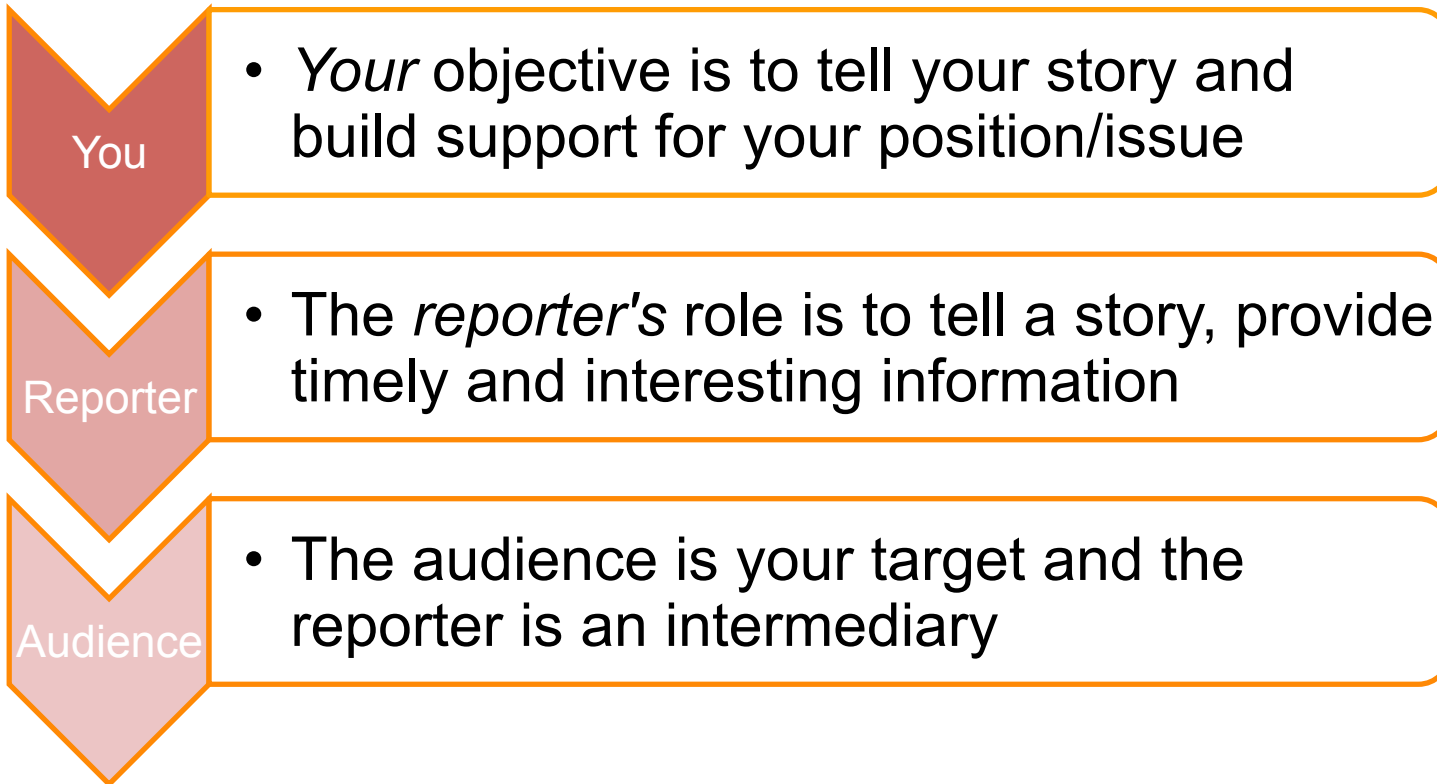
SUN. SCHOOL
10:00 AM

SUN. WORSHIP
11:00 AM & 6:00 PM

WED.
7:00 PM

Pastor Floyd Ingram

Develop Your Story



Generating Attention

- News conferences
- Media briefings
- One-on-one meetings
- Editorial board meetings
- Gimmicks/Theater
- A good spokesperson
- Power of a good story
- User generated content and PSAs



Sustaining Coverage

- Commit to a year-round plan
- Develop a plan that includes multiple activities, techniques, events, and channels
- Employ a rhythm – peaks and valleys
- Put a new top on your story or develop new angles
- Attach to other news hooks, such as key spokespeople speaking at high-profile events



Distracted Driving: What Works to Get Ongoing Attention

- Science – release new research; repurpose old
- Surveys
- Demonstrations
- Media ride-alongs with law enforcement
- Real stories/VIP experiences
- Emerging technology
- Celebrities





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Confronting the Distracted Driving Challenge Moving Forward

MODERATOR

Robert Rivkin, General Counsel, U.S. Department of Transportation

SPEAKERS

Don Osterberg, Senior Vice President, Schneider National

Dr. Linda Angell, Research Scientist, Virginia Tech Transportation Institute

Barbara Harsha, Executive Director, Governors Highway Safety Association

John Maddox, Associate Administrator for Vehicle Safety Research, National Highway Traffic Safety Administration



U.S. Department of Transportation



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Don Osterberg, Senior Vice President
Schneider National



U.S. Department of Transportation



Topics:

- Evolution of Schneider National's policies on distracted driving...
- Impact of active policies on driver behavior:
 - Challenges with policy enforcement
- Beliefs and the effect on habits and behaviors
- Schneider's affirmation process to imprint new beliefs...
- Looking Ahead...What's needed?



Schneider's Distracted Driving Evolution

1935

- Safety core value established..."Nothing we do is worth hurting ourselves or others..." Al Schneider

2003

- Developed a policy prohibiting cell phone use while driving

2005

- Blanked visibility to in-cab communications technology when the vehicle is in motion

2006

- Shifted from ***behavior-based safety management*** to ***belief-based safety leadership***

2007

- Trained all associates on the risks of distracted driving... created a "***want-to***" versus a "***have-to***" approach

2009

- Upgraded distracted driving to an "serious" violation, subject to immediate termination... More active / direct approach...

2010

- New in-cab technology with text-to-voice communications...



The Effectiveness of Company Distracted Driving Policies

- Company policies against distracted driving are a significant deterrent to driver distraction and improves safety performance...
- *“Commercial truck and bus drivers are far less likely to use their cell phone while driving under a fleet cell phone policy”* [Conclusions from Virginia Tech Transportation Institute study...Title: Distraction in Commercial Trucks and Buses: Assessing Prevalence and Risk in Conjunction with Crashes and Near-Crashes]
- Policy enforcement is everyone’s obligation:
 - Driver managers will NEVER call a driver on their cell phone if the truck is moving...
 - Driver cell phone #s are not kept in database accessible by customer service representatives...
 - If driver recruiters receive a call from a perspective driver on their cell phone, they ask them to find a safe place to park and call back...setting the expectation early on...



- Our beliefs are the basis for our attitudes, which shape our behavior, which leads to safety outcomes (incidents/accident)...
- The critical task is to reprogram our beliefs...

Beliefs

Attitudes

Behaviors

Outcomes



Safety Affirmation...Reinforcing the behavior we want, versus what we don't...



"Because I am a disciplined, safety-conscious professional, I lead-by-example and maintain constant situational awareness while driving"



Signed _____



What's Required:

- Technology to detect and report cell phone use while driving...
 - Integrated with other critical events recorded in the truck (hard braking, roll stability activations, speeding, etc.)
- Increased enforcement
- Broader education...make it personal...
- Create a national culture of safety...



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Dr. Linda Angell, Research Scientist
Virginia Tech Transportation Institute



U.S. Department of Transportation

Using Technology To Prevent & Reduce Distraction

A key is to integrate technology properly with both the **driver** and with **driving tasks**

- If done well -- can help the driver focus —————→
- If done poorly – can further complicate, interfere with, and distract the driver —————→



Exemplary Design & Integration For The Driver & Driving Environment

- Positive Example: Voice-Based Navigation & Route Guidance
- System adheres to Alliance Driver Focus Guidelines
- System is designed to support the driver in keeping eyes on road, attention forward on traffic /route, and hands-on-wheel
- System verified through testing for use in driving environment



Where can
OnStar take
you today?

447 Kerby Street, in
Creston, Michigan

Okay, your route has been calculated
and your voiced instructions will begin in
a moment.

Inadequate Integration of Technology With The Driver & Driving Tasks

- Example of Incomplete/Unsuitable Integration:

Handheld
Carried-In Device
Showing Video
Requiring
Two Handed Operation
And Continuous Gaze
Away From Road at
Tiny Screen



- Device not designed specifically for use while driving
- Does not adhere to industry guidelines limiting distraction
- Device not designed to support driver's need to keep eyes and mind on road – or hands on wheel
- Device usage while driving not tested during development

Preventing & Reducing Distraction With Technology [Before Traffic Conflict Develops]

TECHNOLOGY

De-Cluttering Techniques

Remove
unneeded
Info from cluster

Embedded Training & Safety Coaching

Lockouts

Hard Lockouts

Soft, Adaptive
Lockouts

Simple Workload & Dialog Managers

Info Prioritization
Control of Timing
Use of Delays

PURPOSE

Improve
driver focus
on key
Information

“Teach”
smart choices
during driving

Block
usage of certain
devices, tasks ,
&/or 3rd-party
“apps”

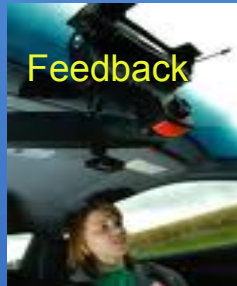
Monitor
workload on
driver &
control info
flow

EXAMPLES

Introduced – 93/94 Saab 900



Feedback



Function Locked Out



ComSense, Dialog Manager
Saab 9-3



Actively Assisting Drivers With Distraction Using Technology

[During Pre-Conflict, Conflict, Imminent Crash, & Crash Periods]

TECHNOLOGY

**ACTIVE
MONITORING
& SUPPORT
OF
DRIVER
ATTENTION**

+

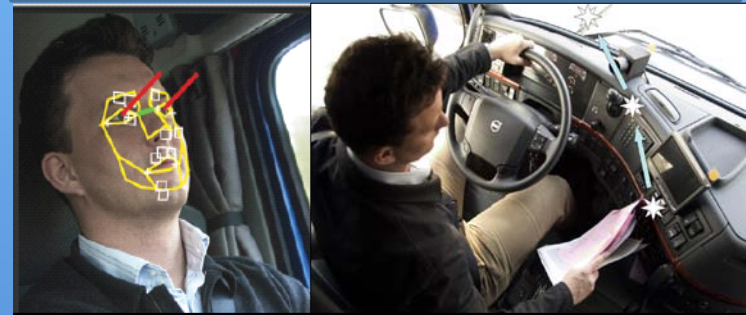
**ACTIVE
DRIVER
ASSIST
TO AVOID
CRASH**

PURPOSE

Track
driver
attentiveness
to road
+
alert driver to
moments of
distraction
+
cue shift of
driver
attention back
to road

Prepare &
engage
a sequence
of
vehicle systems
to
help driver
avoid
crash
(e.g., Lane
Departure Warning
& Collision
Imminent Braking,
etc.)

Volvo prototypes under study -- with NHTSA



Volvo Technology From: Trent Victor: (2009); Volvo: Driver Impairment: Distraction and Drowsiness; Volvo Technology.

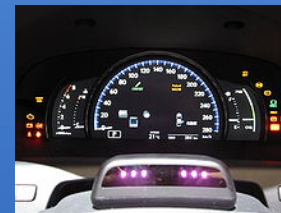
VOLVO

Driver Attention Monitor – Introduced 2006 Lexus (Japan)

+
Pre-
Collision
System



Adapted from:
http://en.wikipedia.org/wiki/Driver_Monitoring_System
<http://creativecommons.org/licenses/by-sa/3.0/>



EXAMPLES

Steps For Harnessing Technology

Work is needed to:

1. Support development of technology solutions to prevent distraction

- Encourage innovation, development
- Evaluate technology solutions carefully to find those that are effective
- Optimize them to deliver benefits & to minimize/eliminate unintended consequences
- Incentivize deployment

2. Integrate technology effectively with the driver and driving task

- Assure that the driver interface for information and telematics systems MINIMIZES distraction
 - » Shared guidelines
 - » Test procedures
- Assure that new technologies for assisting drivers are properly integrated
 - » To prevent/reduce distraction & assist in crash avoidance
 - » To support driver supervisory attention
- Engage all parties --including and beyond automobile manufacturers (portable device manufacturers, 'apps' developers, network providers)



3. Educate drivers to make smart choices in choosing and using technology – and to create a safety culture -- because even the best technologies can only be a partner with *responsible* drivers toward safe outcomes



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Barbara Harsha, Executive Director
Governors Highway Safety Association



U.S. Department of Transportation

State Progress on Distracted Driving

- Since January, 12 states have enacted text messaging bans
- GHSA expects that nearly all states will ban text messaging in the next two years
 - NHTSA model law
 - FY 2011 appropriations earmark for texting bans
- At least 27 states have included distracted driving as a priority emphasis area in their Strategic Highway Safety Plans
- As states updates those plans, more can be expected to add distraction as an key emphasis area



State Distracted Driving Data Collection

- 43 states collect data on distraction – up from 17 in 2003
- Of those, 34 states collect data that is consistent with the Model Minimum Uniform Crash Criteria (MMUCC) Guideline
- The distraction data element will be updated and expanded next year, final publication in 2012



Driver Education and Licensing

- 23 states have driver education materials on teen driver distraction
- 32 states have sections in their drivers manual on distraction and another 21 discuss the dangers of at least one type of distraction
- 17 states and DC have at least one question on the driver license exam on distraction



Education, Employer Programs

- 41 states are addressing distraction through public education efforts including social media
- 35 states working with other state agencies or private entities to address distraction
- 16 states are working with employers on distraction issues



State Examples

- In the upcoming year, CA expects to spend \$2.7 million in Section 402 funding for a multi-prong DD effort
- MN is partnering with the Governor's office to have a "Distraction Free Driving Day" with increased enforcement, advertising
- In NJ, approx. 10,000 tickets written each month for hand-held cell phone and texting violations
- In MI, an "Thumbs on the Wheel" Campaign was launched
- Other states will roll out campaigns when their new texting/cell phone laws take effect



Bottom Line

- A lot of activity at the state level
- More states can be expected to enact legislation
- Much more research is needed to determine whether any of these countermeasures reduce distraction or have an impact on crashes, fatalities and injuries





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**John Maddox, Associate Administrator
for Vehicle Safety Research
National Highway Traffic Safety
Administration**



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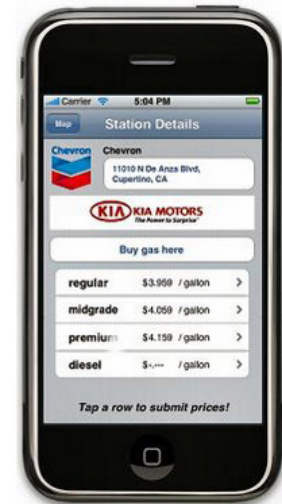
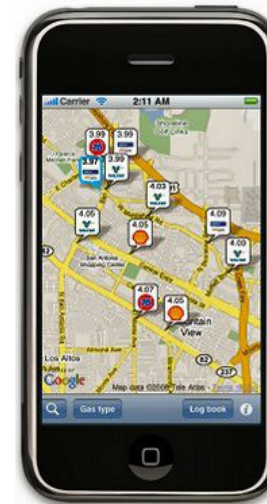
A Technology Explosion

"The car is an expensive phone"

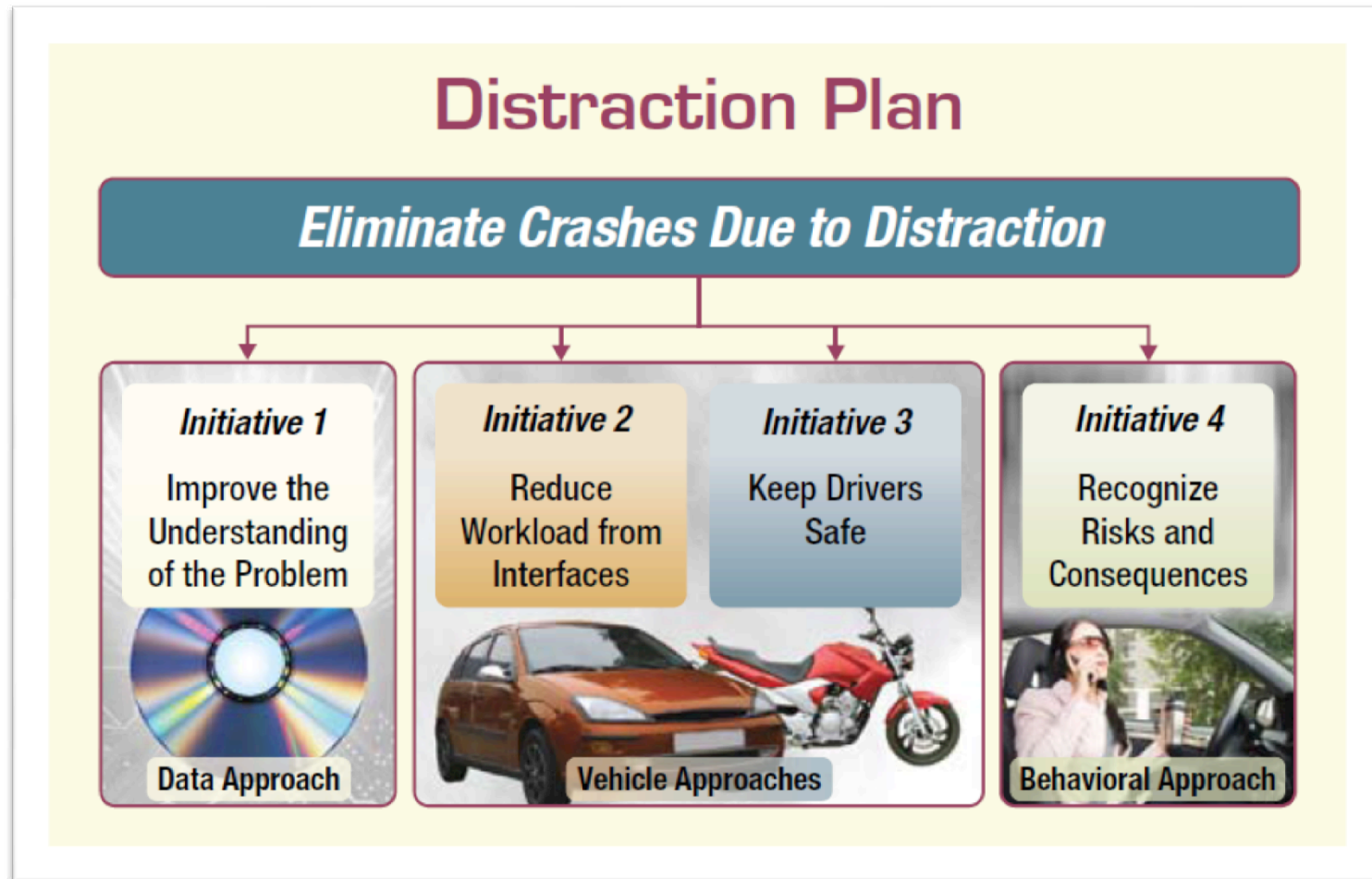


"We're working hard to make the Audi DT, the ultimate mobile device"

"The company that can accommodate as many different mobile devices as possible, and integrate them in the car -- they're the guys who are going to win long term"



Since the Last Summit



Since the Last Summit

- Driver Behavior

- Pilot Test of Low Cost Driver Behavior System - FMCSA
- Evaluate laws and high-visibility enforcement - NHTSA
- Draft and publish sample law for use by states - NHTSA

- Improved Data Collection

- NOPUS cell phone study - NHTSA
- Improved police reporting - NHTSA



Current DOT Research

- Naturalistic Driving Studies

- SHRP II - FHWA/NHTSA/FMCSA
- Merge roadway data with vehicle/driving data - FHWA
- Small Scale Naturalistic Driving Study - NHTSA
- 270 Truck Naturalistic Study - FMCSA



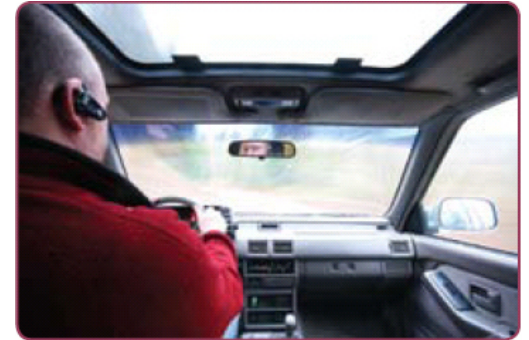
- Driver Support Systems

- Improve crash warning interfaces - NHTSA
- Assess distraction monitoring systems - NHTSA

Current DOT Research

- Guidance to Vehicle Manufacturers

- Develop metrics and visual-manual guidelines - NHTSA



- Human Factors for IntelliDriveSM

- NHTSA, RITA, FHWA, FMCSA, FTA
- Develop guidelines to ensure IntelliDrive interfaces are effective without increasing distraction

- Digital Billboard

- Evaluate distractions from outside of the vehicle - FHWA



Looking ahead

- Research Needs Moving Forward

- What additional analysis can be done on the naturalistic data already collected?
- What is “*True* Hands-Free”?
- What is the best metric for measuring distraction?
- How can Cognitive Distraction be measured in real world driving situations?
- Other ideas...





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Jennifer Smith, President and Founder
FocusDriven



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